

CLAIMS

1. A method for producing a dialkyl carbonate and a diol, comprising:

5 (a) effecting a transesterification reaction between a cyclic carbonate and an aliphatic monohydric alcohol in the presence of a transesterification catalyst, thereby obtaining a reaction mixture containing a product dialkyl carbonate and a product diol,

10 (b) withdrawing a dialkyl carbonate-containing liquid from said reaction mixture, followed by separation of the dialkyl carbonate from the dialkyl carbonate-containing liquid, and

 (c) withdrawing a diol-containing liquid from said
15 reaction mixture, followed by separation of the diol from the diol-containing liquid,

 said steps (b) and (c) being performed in either order or simultaneously,

 wherein:

20 said cyclic carbonate contains a cyclic ether represented by the formula (1) below in an amount of from 0.1 to 3,000 ppm by weight, and

 said product dialkyl carbonate contains a carbonate ether represented by the formula (2) below in an
25 amount of not more than 10,000 ppm by weight,



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wherein R^1 represents a divalent group represented by the formula: $-(\text{CH}_2)_m-$ wherein m is an integer of from 2 to 6, and at least one hydrogen atom of R^1 is optionally replaced by at least one substituent group selected from the group consisting of a C_{1-10} alkyl group and a C_{6-10} aryl group, and

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wherein R^1 is as defined above for formula (1), R^2 represents a C_{1-12} monovalent aliphatic group, and at least one hydrogen atom of R^2 is optionally replaced by at least one substituent group selected from the group consisting of a C_{1-10} alkyl group and a C_{6-10} aryl group.

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2. The method according to claim 1, wherein the amount of said cyclic ether in said cyclic carbonate is from 3 to 1,500 ppm by weight.

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3. The method according to claim 2, wherein the amount of said cyclic ether in said cyclic carbonate is from 10 to 1,000 ppm by weight.

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4. The method according to any one of claims 1 to 3, wherein said cyclic carbonate is ethylene carbonate.

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5. The method according to any one of claims 1 to 4, wherein said transesterification reaction is performed in a reactive distillation column.

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6. A dialkyl carbonate produced by the method of any one of claims 1 to 5, which contains a carbonate ether represented by the formula (2) of claim 1 in an amount of from 1 to 10,000 ppm by weight.

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7. The dialkyl carbonate according to claim 6, wherein the amount of said carbonate ether in the dialkyl carbonate is from 3 to 5,000 ppm by weight.

8. The dialkyl carbonate according to claim 7, wherein the amount of said carbonate ether in the dialkyl carbonate is from 10 to 3,000 ppm by weight.